



## Procedures and Guidelines

**DIRECTIVE NO.** 500-PG-1410.2.1  
**EFFECTIVE DATE:** 11/1/2000  
**EXPIRATION DATE:** 11/1/2005

**APPROVED BY Signature:** Original signed by  
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**TITLE:** Asst Director of AETD for Engr Support

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**Responsible Office:** 500.0/Applied Engineering And Technology Directorate

**Title:** AETD Configuration Management

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### PREFACE

#### P1. PURPOSE

The Applied Engineering and Technology Directorate (AETD) provides discipline engineering in support of projects routinely managed by other Goddard Directorates or external organizations. These organizations, external to AETD, are responsible for both documentation and product configuration management (CM) and AETD will follow the CM procedures defined by these organizations. There are times however when AETD is solely responsible for the development of a product within the scope of the QMS. In such cases, AETD is responsible for both product CM as well as related documentation CM.

This procedure defines configuration management requirements and approaches for managing documentation within the AETD. It addresses documentation not covered by configuration management procedures defined by Projects managed outside of, but supported by, AETD (400 PG 1410.2.1, 800 PG 1410.2.1). This procedure also addresses the implementation of product configuration management within AETD when the product is within the scope of the QMS and configuration management requirements are not covered by other QMS procedures.

#### P2. REFERENCES

GPG 1410.1 Directives and Documentation Management  
GPG 1410.2 Configuration Management  
GPG 1440.7 Control of Quality Records  
GPG 5330.1 Product Processing, Inspection and Test  
400 PG 1410.2.1 Configuration Control  
800 PG 1410.2.1 Document Configuration Management

#### P3. SCOPE

This procedure applies to all AETD organizations. It applies to all AETD controlled documents, issued or revised after the effective date of this procedure, not addressed by formal configuration management procedures defined elsewhere in the QMS. It applies to product covered within the scope of the QMS which is managed solely within the AETD.

CHECK THE GSFC DIRECTIVES MANAGEMENT SYSTEM AT

<http://gdms.gsfc.nasa.gov/gdms> TO VERIFY THAT THIS IS THE CORRECT VERSION PRIOR TO USE.

#### **P4. DEFINITIONS**

Controlled Document – any document that, if an improper version were used, may impact the quality of our products or management processes including our ability to demonstrate compliance with the GSFC QMS. Controlled documents include but are not limited to, quality records lists, an organization's test plans, procedures, guides, handbooks, personnel locator lists, etc

Controlled Documents List – an organization's list of controlled documents (internal and external). This list shall indicate the document title, document identification number, revision status, effective date, and name of the responsible organization.

Configuration Change/Approval Request (CCR) – GSFC Form 4-35 which provides a structured way to request changes in configuration control and track disposition and approval of proposed changes.

Configuration Management Review Records – Records maintained as part of configuration management quality records which document the review process for proposed changes to a document or product under configuration control. These records include the list of reviewers, review comments, and disposition of comments.

#### **P5. AUTHORITIES AND RESPONSIBILITIES**

Each organizational element within AETD shall ensure that all documents are controlled to meet the requirements of the GSFC Quality Management System. Branch Heads, designated Associate Engineering Center Chiefs (designated by the Engineering Center Chief), and the Assistant Director of AETD for Engineering Support are responsible for ensuring effective configuration management of AETD documentation requiring configuration control and maintaining the appropriate Controlled Document List. These managers may delegate these responsibilities as appropriate. AETD Project Managers, or Product Design Leads (PDLs) as appropriate, are responsible for ensuring configuration management for all AETD products that are not covered by configuration management procedures defined outside of AETD (e.g. Code 400 Project CM procedures as defined in 400-PG-1410.2.1 Configuration Control).

#### **P6. CANCELLATION**

N/A

## P7. QUALITY RECORDS

Quality Record Title	Record Custodian	Retention
Completed Configuration Change/Approval Requests, including Configuration Management Review Records (comments, disposition, and identification of reviewers)	Performing Organization	<u>NRRS 8/5 – A2</u> Records may be retired to an FRC when 2 years old. Destroy when 15 years old.

## IMPLEMENTATION

### 1.1 Product Configuration Management:

At the outset of any project managed within the AETD, the designated project manager or PDL will establish product configuration management procedures in accordance with GPG 1410.2 - Configuration Management.

### 1.2 Documentation Configuration Management:

The GSFC has defined a number of specialty systems which involve configuration management for specific classes of documents. Examples include the Goddard Directives Management System established in GPG 1410.1, requirements for Quality Records as outlined in GPG 1440.7, the Work Order Authorization process as described in GPG 5330.1, and the Centralized Configuration Management System (CCMS). To the degree practical, configuration management of documentation within the AETD will be accomplished using the configuration management procedures defined in these systems/procedures. For instance, a test procedure should be controlled either as a work instruction in the GDMS or as a WOA as opposed to establishing document control outside of these standard GSFC systems.

All documentation configuration management requirements will be met at the lowest appropriate organizational level within the directorate. Documentation at the Branch level will be managed by the Branch Head or by the Branch Head's designee. Where two or more branches in the same Engineering Center are involved with a project where documentation control within AETD is required, one will be designated as lead for managing the documentation under consideration or configuration management will be managed at the Engineering Center level by the designated Associate Engineering Center Chief or his/her designee. For documentation involving multiple Engineering Centers, either the Engineering Centers will establish which organization shall take the lead role or, if appropriate, the configuration management responsibilities will be managed at the Directorate level.

Branch Heads, designated Associate Engineering Center Chiefs, the Assistant Director of AETD for Engineering Support, or their designees as appropriate, will fulfill the function of the Configuration Control Board (CCB) as described in GPG 1410.2 Configuration Management and be considered the approving authority. These individuals may include others as formal members on the CCB and if so will document membership and procedures as either a directive or a controlled document. The approving authority will ensure that:

- a. All effected organizations and the customer are involved in CCB actions.
- b. Change logs for all controlled documents are maintained including review comments, identification of reviewers, and disposition of comments. Change logs are not required for management documents totally under the purview of the approving authority; e.g. Quality Records Lists, Personnel Locator lists, Controlled Documents List. Such documents may be changed at the discretion of the approving authority but revisions shall be signed and dated.
- c. Draft documents and revisions are clearly identified
- d. Consideration is given to the impact of each proposed change to documents in terms of its effect on product, its processing, and its intended use.
- e. The organization's Controlled Documents List is updated as required regarding change to controlled document status.

AETD managers responsible for CM will maintain a Controlled Documents List which reflects the status and effective date of all controlled documents. Status will be recorded as either "active", "under revision" or "archived". Obsolete documents will be removed from the list. This list must also include external documents relevant to the organization or project where a particular version must be used across the organization to ensure product or process quality. The Controlled Documents List may be maintained in paper or electronic form. All documents shall be uniquely numbered/titled for reference and tracking purposes. Numbering methodology will be at the discretion of the manager. GPG 1410.2 provides additional detail on Document Identification requirements. The CCMS embodies an identification system that addresses this requirement.

### 1.2.1 External Documents

AETD uses numerous external documents such as specifications, standards, etc. Where it is organizational policy that a specific version of an external document be used across the organization, that external document will be included on the organization's Controlled Documents List or referenced in a specific Procedure or Work Instruction, e.g. a specific design standard referenced in a PG or a specific equipment manual referenced in a WI. Where this is not the case, individuals will reference the version of the external document used on the WOA or the external document will be identified as needed in the engineer's design documentation.

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### **1.3 Configuration Change/Approval Requests (CCR)**

Requests for a new document release or changes are initiated by a GSFC Form 4-35 "GSFC Configuration Change/Approval Request". This form is available in the "Forms" section of the Goddard Directives Management System (GDMS). After the change or approval is processed and its disposition finalized, the approving authority shall sign the CCR and file as a quality record. The use of the CCR is not required for changes to management documents which are totally under the purview of the approving authority and do not impact the quality of our product; e.g. Quality Records List, Personnel Locator Lists, Controlled Documents Lists, etc.

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### CHANGE HISTORY LOG

Revision	Effective Date	Description of Changes
Baseline	11/1/2000	Initial Release